

In the Claims

1-19. (cancelled)

20. (currently amended) A method of making a sensor, comprising the steps of:
providing a substrate;
providing at least one opening in the substrate ~~that extends from a first outer-~~
~~most surface to a second outermost surface of the substrate;~~
placing an electrode proximate to the at least one opening; and
contacting a dry ionomer membrane to the substrate and electrode;
providing at least one hole in the ionomer membrane;
aligning the at least one hole with the at least one opening for defining a gas
passage;

wherein, the ionomer membrane is dry during the steps of providing the at least one opening in the substrate, placing the electrode proximate to the at least one opening, ~~and~~ contacting the dry ionomer membrane to the substrate and electrode, providing the at least one hole in the ionomer membrane, and aligning the at least one hole with the at least one opening.

21. (previously presented) The method of claim 20 further comprising the step of aligning the at least one opening in the substrate with the electrode for defining a gas passage.

22. (cancelled)

23. (previously presented) The method of claim 20 further comprising the step of positioning a polymer layer upon the electrode for slowing inputs of gas moving through the at least one opening onto a surface of the electrode.

24. (previously presented) The method of claim 20 where the step of providing a substrate further includes positioning a counter electrode in contact with the dry ionomer membrane such that upon wetting the dry ionomer membrane the counter electrode provides an electrical connection.

25. (previously presented) The method of claim 20 where the step of providing a substrate further includes positioning a reference electrode in contact with the dry ionomer membrane such that upon wetting the dry ionomer membrane a reference point is created against which the potential of other electrodes can be measured.

26. (previously presented) The method of claim 20 where the step of providing a dry ionomer membrane further includes obtaining a perfluorosulfonic acid membrane.

27. (currently amended) The method of claim 20 further comprising the step of providing a reservoir without liquid in contact with the dry ionomer membrane.

28. (currently amended) The method of claim 27 further comprising the step of filling the reservoir with a liquid for hydrating the ionomer membrane.

29. (cancelled)

30. (currently amended) The method of claim ~~29~~ 20 further comprising the step of aligning the at least one hole with the electrode for defining a gas passage.

31. (currently amended) A method of making an electrochemical sensor, comprising the steps of:

providing a substrate;

placing an electrode on the substrate;

contacting a dry ionomer membrane to the substrate and electrode;

providing a hole in the dry ionomer membrane proximate to the electrode;

extending an opening in the substrate; ~~from a first outermost surface to a second outermost surface;~~ and

aligning the hole and the opening with the electrode for defining a gas passage;

and

wherein, the ionomer membrane is dry during the steps of providing the at least one opening in the substrate, placing the electrode proximate to the at least one opening, and contacting the dry ionomer membrane to the substrate and electrode, providing the hole in the ionomer membrane, and aligning the hole and opening with the electrode for defining a gas passage.

32. (cancelled)

33. (new) The method according to claim 31, further comprising the providing a reservoir without liquid in contact with the dry ionomer membrane.

34. (new) The method according to claim 33, further comprising the step of filling the reservoir with a liquid for hydrating the ionomer membrane.